The MAC Flyer

MAY 1977

Aftermath of a Midair: "The Saddest of Things." Page 3.

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The MAC Flyer

For Greater Efficiency
in MAC Air Operations

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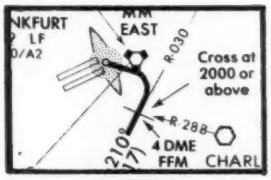

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Honorable Mention, 1976 MAC Flying Safety Writing Contest

by Capt William R. Losey
9 MAS
Dover AFB, Delaware

The Saddest of Things

The saddest of things are not those things that shouldn't have been, but those things that could have been otherwise.

Captain Johnny Brown thumbed through the raft of papers that had accumulated in his V-file during his most recent trip. The Teheran Shuttle had turned into a ten-day mission because of maintenance problems at Ramstein, and now Johnny was looking forward to the three "free" days that would carry him through until Saturday.

Sergeant Katz leaned over the operations counter and hollered toward the FCIF room, "Captain Brown! Seven-three."

"Okay, be there in a sec," Johnny yelled back.

Johnny walked toward the telephone, wondering who was calling him and what "urgent problem" had come up this time. He silently resolved to let nothing interrupt his four-day vacation trip this time. After all, post mission crew rest was supposed to be inviolate!

"Captain Brown. May I help you?" Johnny said half-heartedly.

"Captain Brown, this is Colonel Kline."

"Yes, Sir?"

"Johnny, I don't know if you heard the rumor about the C-5 crash..."

"No, Sir, but there was an announcement on the radio about an hour ago that a four-engine Air Force transport crashed somewhere in Germany. Was it one of ours?"

"I'm afraid so. It was Jake Thompson and his crew."

"Oh, my God! What happened?"

"Apparently a midair with a commercial during descent into Frankfurt."

"All dead?"

"Not all of the bodies have been found; however, the remains of Captain Thompson and Tech Sergeant Rutledge have been identified. I'm afraid the chances of anyone surviving this one are slim and none," the colonel said. "I hate to be the one to drop this news on you, but we need an officer to give official notification to the family. Since you're so close to them, I thought you should be the one."

Oh, Christ, no! Johnny thought.

Then, in a deceptively calm voice, "All right, Sir. I'd rather take a beating than do this, but I guess I'm the one who should tell her."

"Good. You realize they'll need all the support we can give them."

"Yes, Sir."

"Okay. You need to meet Major Cole at Chapel 1 as soon as possible. He'll brief you on the notification procedures. I'm sorry you have to be the one to deliver the news."

"That's all right, Sir. I'll handle it as well as I can. I'll get back to you as soon as I've taken care of it."

Johnny Brown had always been the type of person who meets problems head on. His ability to overcome difficult problems was one of his trademarks. But how could he possibly tell Missy and the kids? He would have given anything to get out of this task!

Jake and Missy Thompson had

been close friends with Johnny and his wife Helen since pilot training. After graduation, Johnny and Jake had gone through survival school together at Fairchild and were later roommates during C-141 TTU at Altus. From Altus, Jake had gone to Robins AFB and Johnny to Charleston. After three years of separation, the two families were reunited at their present base of assignment.

Lately Johnny had noticed a change in Jake's attitude. Jake had received an AFIT assignment to the University of Tennessee for law school and since then had become apprehensive about flying, finally even admitting that he was having thoughts and daydreams about crashing, midairs, and other morbid situations. At first Johnny tried to pass it off with a laugh. But he realized the seriousness of the problem when Jake started dreaming up excuses to get out of trips.

Johnny walked out of Chapel 1 feeling sick at heart just knowing what a crushing blow he was about to deliver to Missy and the kids. Questions kept running through his mind.

What happened? Why?

•

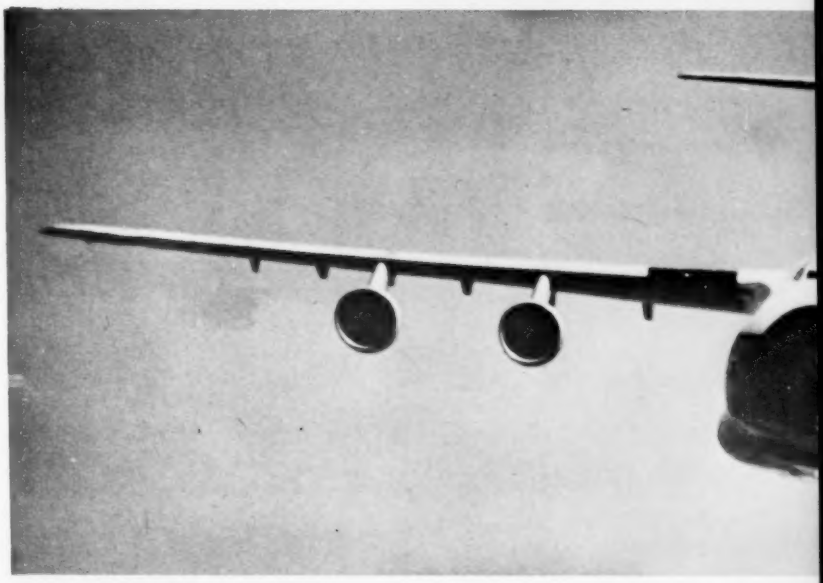
Jake Thompson stared at the European Low Altitude Approach plate in front of him. He had finished briefing an ILS approach to runway 25 left at Frankfurt and was trying to become thoroughly familiar with the missed approach procedures since a missed approach was a distinct possibility due to the weather. Frankfurt Main was calling for 300 broken, 500 overcast, one mile visibility, light rain and fog.

Jake had felt nervous and ill at ease ever since home station departure. He had been charged with a delay because the copilot hadn't checked the IFF-SIF until just before station time—and found that it was inop. On the second day out, maintenance problems had caused a late takeoff from Ramstein. This, combined with trouble getting fuel at Teheran, had pushed the crew duty day right up to the 24-hour mark. The second shuttle to Teheran was almost a carbon copy of the first. When the crew finally got back to Frankfurt, they were told to make still another run to Teheran.

Today's mission had been relatively trouble free. Except for the IFF-SIF failure en route to Teheran, all had gone well. But the strain of three consecutive 24-hour crew duty days was beginning to take its toll on the crew, especially on the aircraft commander. Jake began making errors in judgment. Two of the more serious ones were his decisions not to inform 21 AF about the transponder failure and to press on back to Frankfurt without getting it repaired.

The airspace over the Federal Republic of Germany is no place for the weak or lame! The volume of commercial, civil, and military traffic around Frankfurt make it one of the busiest airports in the world. Much of the military traffic consists of VFR, low-level fast-movers. Rules and procedures for flying in this area are voluminous and require strict adherence. These factors, combined with the presence of the Central European Buffer Zone and the frequent bad weather, make flying into Frankfurt a real challenge to any aircrew. Among the more important items necessary for a safe flight into Frankfurt are an alert, knowledgeable crew and an operational transponder. Unfortunately, MAC 90037 didn't have either of those today.

As Jake leaned over to install the approach plate in the holder, he felt strangely relaxed. As a matter of fact, he felt damn good! The problems and pressures of the trip were coming to an end. One more day and they would all be back home. Jake was firmly committed to the idea



"Descent check," Jake called.

of declaring a 24-hour crew rest at Frankfurt. He knew if all went well he would be down on the Kaiser Strasse by 2000 local. The thought of a bratwurst and beer, a little "window shopping" at the Crazy Sexy, and some apple wine in the Saxenhausen made his spirits soar. A BX and Class Six Store run the following morning would top off a good crew rest—and then on back to the CONUS. Yes, Jake Thompson was feeling good now that everything was going well.

"Descent check."

MAC 90037 had just reported XMT, a compulsory reporting point along Upper Amber 24, and France Control cleared the flight to descend to flight level 200. Jake was pleased with the clearance because Frankfurt Radar usually required crossing Rudesheim at 8,000 feet. To make this restriction with a reasonable rate of descent, he knew that descent must begin not later than the France-Luxembourg border. The extra 34 miles would permit him to make an easy letdown.

Passing through FL 280, Jake dialed 138.35 (Console GCI) into the number one VHF radio and pulled up the VHF-1 button on his communication selection panel.

Passing through FL 220, France Control instructed MAC 90037 to report Ruwer Intersection to Frankfurt Radar on 127.05, squawking Alpha 5627. The copilot set in the code. The thought occurred to Jake that it was wasted effort since the transponder had been inoperative most of the day.

Passing Ruwer Intersection, MAC 90037 called Frankfurt Radar and reported level at FL 200.

Frankfurt Radar instructed MAC 90037 to descend so as to cross Rudesheim NDB at FL 80, maintain FL 80 and squawk Alpha 5627 and ident.

As the flight passed FL 193, Frankfurt requested MAC 90037 to recycle the transponder, squawk Alpha 5627 and ident.

As the aircraft passed through FL 180, Frankfurt again requested MAC 90037 to recycle transponder, squawk Alpha 5627 and ident.

Then, as the aircraft descended through FL 170, Frankfurt Control advised MAC 90037 that he had negative radar contact, but to continue descent to FL 80 and report Rudesheim.

At 1605Z straight up, Console GCI called KILT 10 Flight and instructed it to turn left to a heading of 020 degrees.

At 1605Z straight up, Frankfurt Radar instructed MAC 90037 to level at FL 100 and expect descent after passing Rudesheim.

At 1605Z and 10 seconds, another aircraft with the call sign PACK 97 answered, "Roger, maintain FL 100."

At 1605Z straight up, Jake Thompson didn't hear the transmission made by Frankfurt Radar because it was blocked by the transmission made by Console GCI.

At 1605Z straight up, the copilot didn't hear the transmission made by Console GCI because he was monitoring only the primary radio, but he didn't hear Frankfurt either because his mind was on something else.

At 1605Z straight up, the pilot in the jump seat didn't hear either transmission because he was passing a load message to the command post.

At 1605Z straight up, the navigator didn't hear Frankfurt because the instructor navigator was asking him questions over hot mike.

At 1605Z straight up, the flight engineer didn't hear Frankfurt because he didn't have the primary radio selected.

At 1606Z, Clipper 944 made initial contact with Frankfurt Radar and reported level at FL 90. Frankfurt instructed Clipper 944 to maintain FL 90 and

expect higher after passing Rudesheim.

Both Jake and the copilot heard the transmissions made by the Clipper and Frankfurt, but neither one of them understood the significance!

Just 3.2 seconds before he died, Jake Thompson had just adjusted the throttles to maintain 250 knots. He glanced at his altimeter and noted that they were passing FL 90. He was aware that his descent had worked out almost perfectly and that they would be leveling at FL 80 just about the time the number two BDHI needle started to swing Rudesheim.

Just 3.2 seconds before he died, the captain of Clipper 944 was becoming impatient for his climb clearance. He had swung Rudesheim 45 seconds earlier and now was considering calling Frankfurt Radar to jog the controller's memory.

Just 3.2 seconds before he died, Captain Jack Martin, the copilot on MAC 90037, was thinking how good it would be to get back home. He hated to go out on these trips as a copilot. In the three months since upgrading to aircraft commander, he had not been assigned a crew and he was resentful that he was still flying the right seat. Aircraft commander, BFD! he thought.

Just 3.2 seconds before he died, Tech Sergeant Jim Rutledge stared at the panel and wondered if the aircraft commander would let the command post talk him out of declaring 24 hours of uninterruped crew rest.

Just 3.2 seconds before he died, Senior Master Sergeant Willis B. Reed, wing instructor loadmaster, was asleep in the courier compartment.

Just 3.2 seconds before he died, had Jake Thompson looked outside, he would have seen the faint outline of a 747 coming toward him through the grey gloom. He might have been able to react quickly enough to pull up. But at 3.2 seconds he didn't look outside.

Just 1.3 seconds before he died, First Lieutenant Terry Hall, who was sitting in the jump seat, looked outside the aircraft. At that instant his entire body was seized by stark terror and the ultimate realization that he was going to die! Terry Hall was the only one of 302 people killed that day who foresaw the end of his life. At about the time a weak groan was leaving his mouth, it all came to an abrupt end. No one on Clipper 944 ever realized what happened.

One can only imagine what happens to the occupants of two aircraft, both weighing over five hundred thousand pounds, when they join together at a closure rate of over 600 knots. The accident report stated that the probable cause of Jake Thompson's death was "massive disintegration of the body."

Oddly, there was no evidence of fire on any part of either aircraft. The accident board had a difficult time explaining this, but surmised that the force of impact was so terrific that any resultant fires were instantly snuffed out. Approximately 90 percent of the wreckage was found in an area 15 square miles in size. Many parts could not be identified as belonging to either aircraft since they were literally "fused" together by the tremendous force of impact. The report stated that the identification of Captain Thompson's body was based upon the discovery of a glass object five inches wide and eight inches long, which apparently was part of the wind screen. Remnants of clothing and human flesh were stuck to one side of the glass. By viewing the glass object from the clear side, the observer could look through the glass and see an intact plastic name tag which read, "J. W. Thompson, USAF."

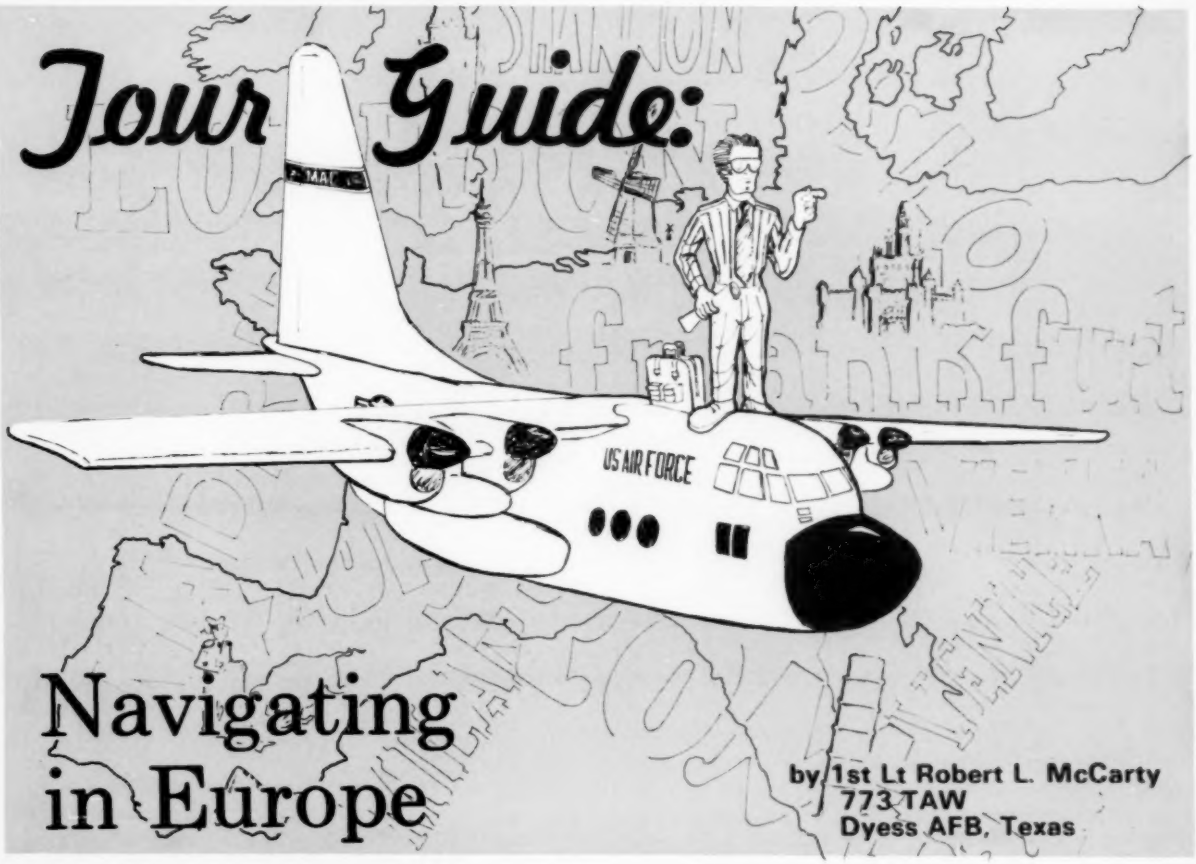
•

As Johnny Brown walked slowly up the sidewalk in front of Jake Thompson's house, he searched his mind for the right words to say. He paused before walking up on the front porch and thought what a sad moment it was. Then, with the reluctance of an unwilling messenger, he pressed the doorbell.

ABOUT THE AUTHOR

Captain Losey is in the C-5 AC upgrade program at Dover AFB. Joining the 9 MAS in August of 1975, he is now serving as squadron safety officer. Captain Losey graduated from Louisiana State University in 1968, attended OTS, and graduated from UPT in 1969. Prior to this assignment, he flew C-123K, C-118, and C-141 aircraft. Captain Losey recently earned a master's degree in systems management at the University of Southern California.

On the ground—or at 20,000 feet—life on the Continent can be different.



Navigating in Europe

by 1st Lt Robert L. McCarty
773 TAW
Dyess AFB, Texas

This article was written by a young C-130 navigator after a trip to the Continent. Whether you're an old head or an FNG, you should find the account informative. Written from a navigator's viewpoint, its message is applicable to everyone in the cockpit.

At one time, when people talked to me about Europe, I had visions of the Eiffel Tower, Spanish bullfights, and bikini-clad women on the beach at Majorca — like the travel posters depict. But that was before my first flying mission to the Continent as a C-130 navigator.

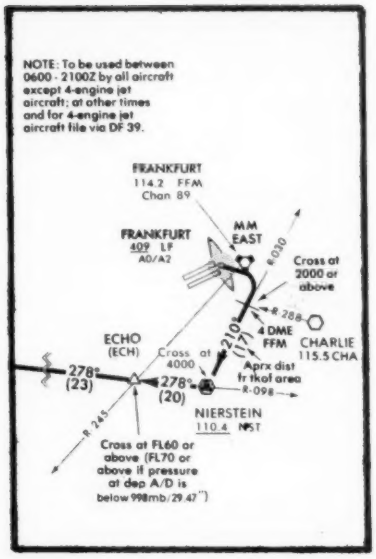
Don't get the idea that I'm an expert in European navigation. I'm not. But I learned a great deal during my first few missions in Europe and I'd like to share some of my experiences with you.

If you've never had the pleasure of navigating your way around Europe and you think it's the same as the doldrums of Pacific flying or the humdrums of airwaying it around the U. S., think again. If you're a 5,000-hour navigator and know where Lima Echo Tango Oscar is, my experiences might just amuse you. But if not...

I probably had been briefed on the differences on many occasions, but still I assumed that European airways couldn't be much different than the good old U. S. structure. First mistake.

Another obvious thing that I didn't take into account is that Europe consists of several different countries and their governments take a certain nationalistic pride in how they run the airspace above their soil.

"Radar vectors direct . . ." is a seldom-heard expression on the Continent, and filing a direct route off airways is not a simple task. In short, getting from point A to point B in Europe isn't all that easy. For one thing, the stateside ATC-type radar net is missing. You'll also have to contend with things such as foreign controllers whose English is difficult to understand, one-way air-



European SID'S are designed to facilitate traffic flow — and controllers use them just that way.

ways, airway altitudes which don't necessarily agree with the golden rule of hemispherical separation, tacan routes, airways which require prior permission for use, and controllers who seem bent on routing you everywhere but where you want to go.

Altitude Structure

Another surprise that you'll encounter is the limits of the low- and high altitude structure. You won't find that old standard 18,000-foot boundary separating the two, *a la* stateside. The lower limit of the high altitude structure can be anywhere between FL 195 and FL 250, depending on the country you're overflying. And in a heavy Herk, this can cause some shuffling between structures.

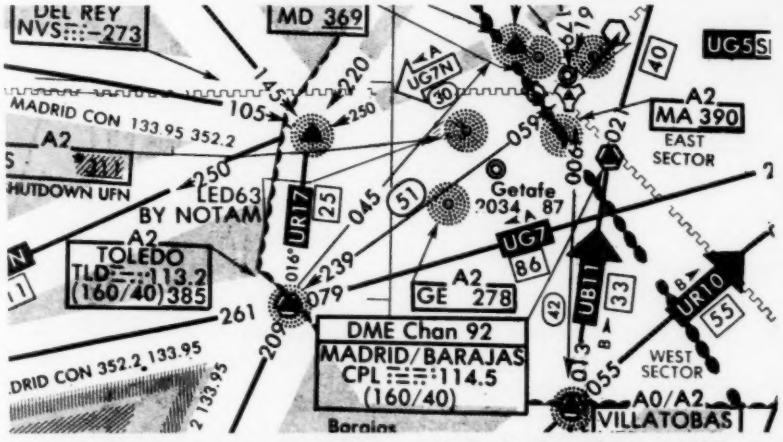
The importance of flight planning can't be overemphasized. The extra work and research performed on the ground pays healthy dividends in terms of comfort and confidence once you're airborne. So spend some extra time in the flight planning room.

Be sure and pick up a SID; unlike stateside controllers, European controllers won't always give radar vectors to intercept an airway. The Europeans seem to feel that SID's were designed to facilitate traffic flow, and they use them exactly that way. There are some airfields that have only one SID, and it doesn't always provide a routing in the direction you desire. So you may have to fly the SID and then do some backtracking.

Perhaps the best way to point out some of the problems, harassments, and headaches of European flying is to take a simulated tour from Rhein-Main AB (that's pronounced "rine mine" by controllers in West Germany) to Zaragoza AB, Spain. One of the most confusing but rudimentary problems is learning the various names or identifiers for the same aerodrome. Rhein-Main AB is the name we blue suiters use, but FLIP calls it Frankfurt-Main. And then there's the ICAO identifier — Rhein-Main now becomes EDAF. And when the pilot asks for the time en route to LEZD, it doesn't mean that you've changed your destination — that's the ICAO for Zaragoza. So brush up on the ICAO's; they're in the Enroute Supplement.

As we plan our departure from Rhein-Main, we find that we're lucky. The SID will take us to a point where we can pick up a low altitude airway — if we stay below FL 195 where both the French and Belgian high structures begin. No problem here; we'll get better routing staying low. We plan our climb for later to take advantage of more direct routing, fewer reporting points— and better gas mileage.

The low enroute charts, compared with those in the United States, show considerably fewer VOR's and tacan's. And you thought the ADF's were put on the aircraft to keep the crew entertained! Not so. Radio beacons are major navigational aids throughout Europe. And there are several types, each requiring different tuning methods; we



Enroute charts show fewer VOR's and tacan's then those used in the United States.

must check the Enroute Supplement under Radio/Navigation Data for proper tuning techniques.

As we pick our route of flight, you'll notice that some airways have large arrows pointing in one direction. Others show small "A's" or "B's" with an arrow beside them. In France, still others depict a "TR" designation instead of the normal airway designator.

A quick look at the legend on the chart explains what these symbols mean. The large arrows signify one-way airways. Don't plan to use these unless the arrow is pointing in your direction of flight. The "A's" and "B's" accompanied by small arrows indicate the permissible flight levels for various flight directions. You may fly in the opposite direction of the small arrow accompanying an "A," but you must file for a "B" flight level. "B's" appear only on one-way airways. All of this can be confusing, to say the least.

"TR's" on the high charts indicate tacan routes and are authorized for use by "tacan only" equipped aircraft. We won't plan on using any of these.

Through France, we'll plan to climb to FL 210 into the high altitude structure and gain all those advantages mentioned earlier. Airways UB 31 and UG 5 will get us within about 20 miles of our destination. Oops! We have to switch back to the low chart as we enter Spain because their high structure starts at FL 250. We find that our planned airway has ended and there's no lower airway to accommodate us. So we'll file direct to another airway; it's one of the few times direct filing is allowed.

12 AERODROME/FACILITY DIRECTORY LEGEND

RADIO/NAVIGATION DATA

I. AIR/GROUND VOICE CALLS: When calling ground facilities, pilots should use the facility name and designation as listed in the directory, such as "Mildenhall Tower", "Frankfurt Radar", etc.

IX. RADIO BEACON EMISSIONS: are shown on the data pages. Use the table below when tuning and identifying these facilities.

TYPE STATION:	POSITION OF VOICE–CW/BFO SWITCH ON RADIO COMPASS TO HEAR TONE FOR TUNING USE*:	TO HEAR IDENTIFIER USE:
A1	CW Position	CW Position
A0/A2	CW Position	VOICE Position
A1/A2	CW or VOICE Position	CW or VOICE Position
A2 & A3	VOICE Position	VOICE Position

* Note: Always use CW position to check interference first.

Check the Enroute Supplement for proper ADF tuning procedures.

Finally, we've determined our flight plan route. Now it's time to leaf through the FLIP Planning Document and check every country we plan to overfly, making sure we haven't missed anything — and to check airways restrictions. The FLIP document designates those airways requiring prior permission. Study it well; better to be embarrassed on the ground than in the air.

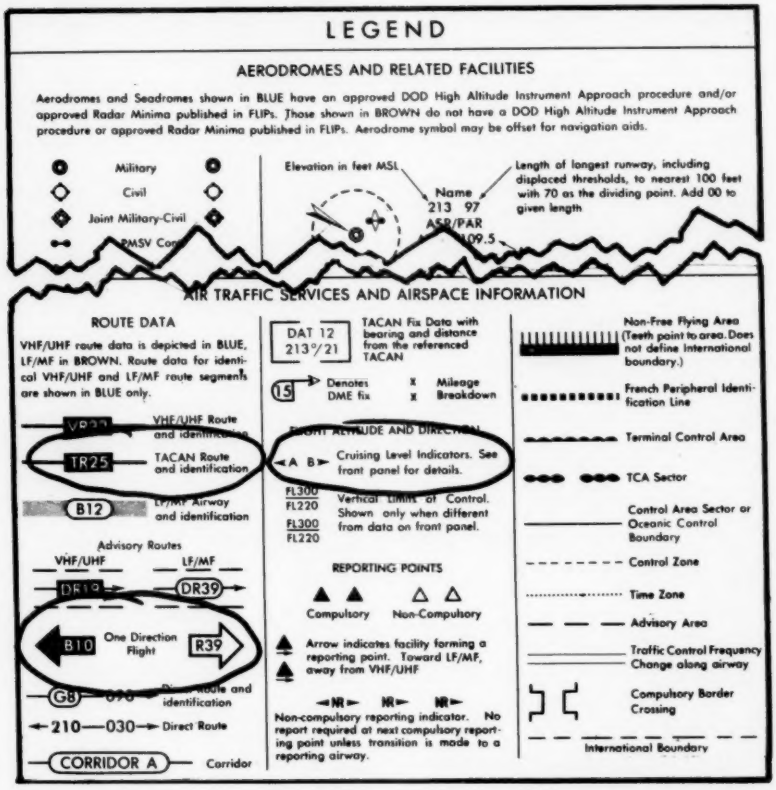
The rest is simple; we'll figure our ETE's and ETA's for the various FIR's based on a planned departure time. These times, along with intended routes of flight, go on the DD Form 1801 — ICAO Flight Plan. When the weight of the paperwork equals the weight of the aircraft, we're ready, as the saying goes.

Cleared for Takeoff

Now that our fictional preflight planning has been accomplished, we'll assume that the crew bus will deliver us to the Hercules with minutes to spare. The navigator and the copilot should listen to the ATIS for the latest weather, runway in use, transition altitude, altimeter setting, IFF/SIF squawk, etc. Tower will expect the crew to have this information when requesting taxi instructions.

Now there's another problem. For the new Old World traveler, it's sometimes difficult to understand a foreign brand of English. But this problem is overcome with experience. Even when you think you're beginning to understand the language, the flight plan readback may still confuse you. Although the sequence is about the same as in the United States, it comes fast. And controllers will use unfamiliar words at times. Instead of giving the ceiling as "scattered," "broken," etc., they may give it in "okta's," or eighths of sky coverage. Altimeter settings may be given as simply "QNH" and may be expressed in millibars rather than inches. This will require a check of the conversion table in the Enroute Supplement.

But we finally get all the


LEGEND
AERODROMES AND RELATED FACILITIES
Aerodromes and Seadromes shown in BLUE have an approved DOD High Altitude Instrument Approach procedure and/or approved Radar Minima published in FLIPs. Those shown in BROWN do not have a DOD High Altitude Instrument Approach procedure or approved Radar Minima published in FLIPs. Aerodrome symbol may be offset for navigation aids.
Military
Civil
Joint Military-Civil
Elevation in feet MSL
Name
213 97
ASR/PAR
109.5
Length of longest runway, including displaced thresholds, to nearest 100 feet with 70 as the dividing point. Add 00 to given length
AIR TRAFFIC SERVICES AND AIRSPACE INFORMATION
ROUTE DATA
VHF/UHF route data is depicted in BLUE, LF/MF in BROWN. Route data for identical VHF/UHF and LF/MF route segments are shown in BLUE only.
VHF/UHF Route and identification
TR25
TACAN Route and identification
B12
LF/MF Airway and identification
Advisory Routes
VHF/UHF
LF/MF
DR39
B10
One Direction Flight
R39
G8
identification
210—030
Direct Route
CORRIDOR A
Corridor
DAT 12
213°/21
TACAN Fix Data with bearing and distance from the referenced TACAN
15
Denotes DME fix
Mileage Breakdown
A B
Cruising Level Indicators. See front panel for details.
FL300
FL220
Vertical Limits of Control. Shown only when different from data on front panel.
FL300
FL220
REPORTING POINTS
Compulsory
Non-Compulsory
Arrow indicates facility forming a reporting point. Toward LF/MF, away from VHF/UHF
NR
Non-compulsory reporting indicator. No report required at next compulsory reporting point unless transition is made to a reporting airway.
Non-Free Flying Area (Teeth point to area. Does not define International boundary.)
French Peripheral Identification Line
Terminal Control Area
TCA Sector
Control Area Sector or Oceanic Control Boundary
Control Zone
Time Zone
Advisory Area
Traffic Control Frequency Change along airway
Compulsory Border Crossing
International Boundary

A look at the legend on the chart explains what the symbols mean.

numbers and in a matter of minutes the Brown and Green is airborne. But there's still more work to be done. I mentioned the SID's earlier and a little of the philosophy behind them. In Germany they serve another purpose: noise abatement. In the United States, navigators usually just watch the pilot fly the SID and back him up. But here, getting off the SID track may set off one of the numerous noise sensors on the ground. So give your pilot all the help you can.

After takeoff, things begin to happen fast. The pilot will ask for an estimate for your next checkpoint. What is this? Somebody actually wants an ETA? While you're calculating it, the pilot calls transition altitude and changes to 29.92 — but, your altimeter reads 5,000 feet. Has the pilot gone crazy? Not at all. In Europe, countries have different transition altitudes; you can pick them up on the ATIS or take them from an approach plate.

The navigator won't be getting much rest en route to Zaragoza because the pilot will be continually asking for estimates, and unexpected reroutes are not uncommon. In France, for instance, a flight may not be cleared beyond its next checkpoint. The navigator has to be ready to provide headings and estimates to new checkpoints. On my first flight over France, we were cleared to a checkpoint that wasn't on our chart; we found it on the low level chart. No, they didn't want us to descend; they simply cleared us to a point where the high and low airways coincided.

Spell Phonetically

Sometimes you'll find it very hard to understand the controllers. Partly because of the accent — but they also use phonetic identifiers for navaids instead of the formal name. Sometimes, when you're cleared to several points, all those Alfa's, Bravo's, and X-ray's can get a little confusing. Attentiveness is the secret.

Finally, we approach Zaragoza. Check the transition level on the letdown plate and monitor terrain with your radar and all available navaids.

Bump! We're on the ground. That wasn't too bad (except for the landing — over which the navigator has no control). Let's offload and do it again.

ABOUT THE AUTHOR

Lieutenant McCarty is a C-130H navigator assigned to the 773 TAS at Dyess AFB. He is a Purdue University graduate, class of '74. Lieutenant McCarty completed flight school at Mather in May of 1975.

Evading MiG's in a transport may seem unlikely, but that was part of the scenario in Exercise...

Red Flag

by Lt Col Orlen L. Brownfield
Associate Editor

The eight Lockheed brethren were lined up abreast, as though left there by a drill sergeant's command. The four shiny C-141's and four "invisible" C-130's had converged at Norton AFB in January to participate in the all-service war game: Red Flag 77-3.

Among the Charleston troops, "Select Lead" patches were ubiquitous; the aeronauts from Pope had an air of "having been there." And between the two groups, there was the customary "strategic" and "tactical" bantering.

"Is this crew bus for the tactical types?"

"Better make sure the strategic boys get their coffee or they won't fly."

"Us 141 guys can hack the mission without a flight lunch."

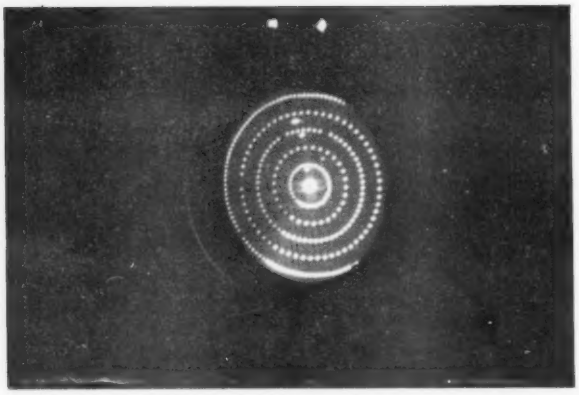
"Us Herk drivers can hack the mission without a bathroom."

"My DO can whip your DO."

And so it went — the banter was light; the atmosphere, professional.

Monday started out with practice flights. The flight from Norton to Rainwater Drop Zone just south of the Salton Sea might best be called a "shakedown" cruise, with the pilots checking out the SKE (station-keeping equipment) and navigators checking their systems.

Actual Red Flag operations began early Tuesday



SKE scope aboard Tulu 64. The three blips are other aircraft in Tulu flight.

Tulu flight lines up for takeoff.

Twain flight headed for "war."

morning as a lone Hercules departed Norton with the Pope Combat Control Team. The C-130, Tulu 64, was commanded by Capt John A. Crocker; guiding the bird to the HALO CARP was Capt Joel F. Tornow, instructor navigator. The drop was made from 25,000 feet—and, according to the CCT members, was letter perfect.

The C-130 crew returned to Norton in time for the Red Flag range and aggressor briefing given by Capt Richard L. Martindale from Nellis AFB. The MAC crews received an in-depth briefing on range procedures, geography, and the ground and airborne equipment being used. Aside from C-130's and C-141's, there would be F-105's providing ground suppression support for the MAC strike; F-4's would provide aerial CAP. The aggressor "MiG's," in various schemes of war paint, would appear in the form of F-5's and Marine A-4's.

Maj Raymond L. Abrahamson, a 317 TAW intell-type, briefed on the location of AAA batteries and SAM sites, mock troop movements, suspected battle plans, and escape and evasion tactics.

The importance of safe air operations was hashed and rehashed throughout the briefing... minimum altitudes... the 2,000-foot protective "bubble" around MAC aircraft... ceasing the battle anytime anyone thought safety was being compromised. Col Charles W. Krecklow, 437 MAW DO and mission commander, reminded his troops that it was easy to get caught up in the reality of the "war" and to stick by the rules regardless of the number of "Northrop MiG's" in your six o'clock.

Tuesday's activities were concluded with the formal CAM briefing conducted by Maj Thomas A. DiGangi, formation lead AC, followed by mission planning.

Wednesday began with the usual O-dark-hundred alert, and the four C-130's and four C-141's taxied out shortly after 0500 local time. The C-130's (call sign Tulu 61-64) departed first; the C-141's (Twain 71-74) followed. THE MAC FLYER was on board Tulu 64, which

would ultimately bring up the rear; the AC, again Capt John Crocker.

"Something's wrong with the pilot's radar scope; is it broken?" a naive editor queried.

"No that's the SKE presentation. The three blips you see on the scope are the rest of Tulu flight."

"Oh."

There were other unusual features in the dimly lit cockpit. Though the layout was the same as those early "E" models we flew years ago out of Charleston, there were a few more gadgets—an interplane turn, climb, descent command module (flight command indicator) associated with the SKE. And what's this on the navigator's panel? An ASN-24? Right. The Pope AWADS Herks have all that neat C-141 stuff as well as an APQ-122 multiband radar similar to that on the C-5.

"See these lines?" Captain Tornow pointed to his scope. "Know what those are?"

We shrugged.

"Power lines..."

We looked out the window and sure enough—there they were.

"...and these," he went on pointing out several more pronounced returns, "are the towers supporting the power lines."

Son of a gun!

Daylight was rapidly approaching and so was "bad guy" country as we descended to 500 AGL. Tulu flight broke off in flights of two and began flying a "modified" in-trail formation.

Tulu 64 began a zig-zagging, jinking, "in-the-dirt" flight which would take advantage of the terrain and the maneuverability of the Herk. With the Starlifters well ahead of us by now, we could tell from the HF radio conversation that the "war" was on—and the C-141's were getting hosed by the aggressor forces. Perhaps they'd burn out the short-legged fighters and we'd have an easy go of it. No such luck!

"Aggressors at seven o'clock!" MSgt Lawrence E. Jones shouted. Our loadmaster was stationed in the rear troop door.

Pope AWADS birds at 500 feet AGL.

Starlifter hugging the deck to avoid radar detection.

Terrain passes swiftly at 270 KIAS.

"Call my break and direction," Captain Crocker answered.

And a few seconds later, Sergeant Jones called, "Break left now!"

The pilot rolled the C-130 into a steep, high-G turn to the left and then a high-G turn to the right—just in time to see the F-5 make a pass on Tulu 63 ahead of us.

And then, as rapidly as they had descended upon us, the aggressors disappeared.

Just over the ridge ahead was the drop zone—somewhere. With all the jinking, escaping and evading, we seemed hopelessly lost. But even in all the excitement, Captain Tornow had our position accurately fixed and provided a heading that took us almost directly to the drop zone.

We slowed down, opened the doors and "green light"—the load was gone. Another good drop for the crew of Tulu 64.

Thursday was a "no-fly" day as the crew planned for the final day's mission. It would be similar to Wednesday's, but the airlifters would try some different techniques based on that earlier experience.

Friday morning came early. THE MAC FLYER would ride with Twain 74 this time—the last C-141 in Twain flight. The aircraft commander was Capt John R. DiSalvo (the troops called him "D.I. Salvo"); his navigator was Lt Col George P. Chapin.

The Starlifters flew a profile much like the C-130's and though the nav equipment was not as sophisticated there was a little more elbow room—and a john. And the SKE made joinup easy. Captain DiSalvo reminded me that only a skillful pilot could make it "look" easy.

We flew at a speed of 270 knots at 500 AGL while the Herks flew at 250 knots. The pilots in both type aircraft had difficulty maintaining airspeed and altitude due to rapidly rising and falling terrain. And the harassment from the fighter aggressors kept most of the heads in the cockpit swivelling.

But this time our fighter CAP accompanied us and F-5 aggressor passes were followed closely by F-4's in 600-knot pursuit. We threaded our way through valleys and passes and arrived at the drop zone on schedule. Colonel Chapin called the green light and, with bundles away, we cleaned up the bird and began to accelerate.

"Twain 64, Mellon." It was the CCT on the DZ. "Your drop was satisfactory."

"... a PI for DI!" the left seater grinned.

Red Flag 77-3 is history now; it provided some good lessons and experiences for those who participated. Essential? You bet! The battle environment was realistic—almost too realistic. But "going to war" and "flying in the dirt" can be safe—as long as you don't get caught up in the reality of the game.

Captain Becker

MSgt Cardona

Good Show

As their C-5A lifted into the morning air at Travis AFB for a local training mission, Capt David W. Becker, an instructor pilot assigned to the 75 MAS, and MSgt Audel Cardona, a 301 MAS flight engineer, prepared for a routine flight. As it turned out, they and the rest of the crew were about to experience the busiest five minutes of their lives.

The first indication of trouble came during the base leg of a simulated three-engine PAR approach. The pilots noticed a bleed duct hot light, followed almost immediately by an overheat warning on the number two engine. From the right seat, Captain Becker directed his student to advance power on the number one engine, which had been at idle for the simulated engine-out approach, and to retard the number two throttle. At the flight engineer's panel, Sergeant Cardona began accomplishing emergency procedures for the overheat. Faced with multiple emergencies, Captain Becker directed the student pilot to continue flying the aircraft so that he could focus all of his attention on evaluating conditions and coordinating with the crew and ground agencies.

But before the engine could be shut down, another warning light illuminated — this one indicating a fire in the inboard section of the left wing. Captain Becker and Sergeant Cardona completed the engine shutdown, then turned their attention to their new problem.

The next few minutes were a maelstrom of activity. Captain Becker directed the student pilot to increase airspeed to help extinguish the fire and to get the plane on the ground as soon as possible. The wing fire was confirmed by a scanner; more warning lights appeared in the cockpit as the fire burned away insulation and melted wiring, causing faulty indications. Captain Becker coordinated emergency actions with approach control, ran both normal and emergency checklists, and finally took control of the aircraft himself for the landing. Sergeant Cardona maintained a flow of nitrogen to the affected area to reduce the intensity of the flames, which were now producing a fire warning on the outboard wing section.

After landing, Captain Becker quickly stopped the aircraft and directed engine shutdown and evacuation. Total elapsed time between the first indication of the fire and the evacuation was four minutes and 55 seconds. The crew escaped without injury; base fire and crash vehicles extinguished the fire.

For their outstanding professionalism and expert handling of an extremely critical emergency situation, Captain Becker and Master Sergeant Cardona received the MAC Distinguished Individual Safety Award — to which THE MAC FLYER is happy to add: Good Show!

1976 MAC Sa

The MAC Trophy for Flying Safety

To the MAC air force or service with the most effective flying safety program as determined by major aircraft accident rate.

Twenty-Second Air Force

MAC Distinguished Wing Flight Safety Award

Goes to the best wing from among those receiving the MAC Flight Safety Achievement Award.

317th Tactical Airlift Wing, Pope AFB

MAC Support Safety Achievement Awards

Recognizes units with excellent quality of services rendered, based on safe mission accomplishment.

Det 2, 435th Tac Alft Wg, Ramstein AB, Germany
Det 3, 435th Tac Alft Wg, Athenai Aprt, Greece
TUSLOG Det 175, Incirlik, Turkey
625th Mil Alft Spt Sq, Torrejon AB, Spain
627th Mil Alft Spt Sq, RAF Mildenhall, UK
603d Mil Alft Spt Sq, Kadena AB, Japan
605th Mil Alft Spt Sq, Andersen AFB, Guam
611th Mil Alft Spt Sq, Osan AB, Korea
619th Mil Alft Spt Sq, Hickam AFB, Hawaii

MAC Flight Safety Achievement Awards

Presented to wings that are accident free and have effective flight safety programs.

41st Resc & Wea Recon Wg, McClellan AFB
39th Aerosp Resc & Recovy Wg, Eglin AFB
375th Aeromed Alft Wg, Scott AFB
317th Tac Alft Wg, Pope AFB
435th Tac Alft Wg, Ramstein AB
436th Mil Alft Wg, Dover AFB
437th Mil Alft Wg, Charleston AFB
463d Tac Alft Wg, Dyess AFB
616th Mil Alft Gp, Elmendorf AFB
374th Tac Alft Wg, Clark AB
443d Mil Alft Wg, Altus AFB

fety Award Winners

MAC Safety Officer of the Year Awards

Presented to one primary duty and one additional duty safety officer for outstanding achievement in support of the MAC safety program.

PRIMARY DUTY

Maj Edward R. Marsey
89th Mil Alft Wg
Andrews AFB, Maryland

ADDITIONAL DUTY

Capt Douglas C. VanWiggeren
Det 18, 39th Aerosp Resc & Recovy Wg
Eglin AFB, Florida

MAC Safety NCO of the Year Awards

Presented to one primary duty and one additional duty safety NCO for outstanding achievement in support of the MAC safety program.

PRIMARY DUTY

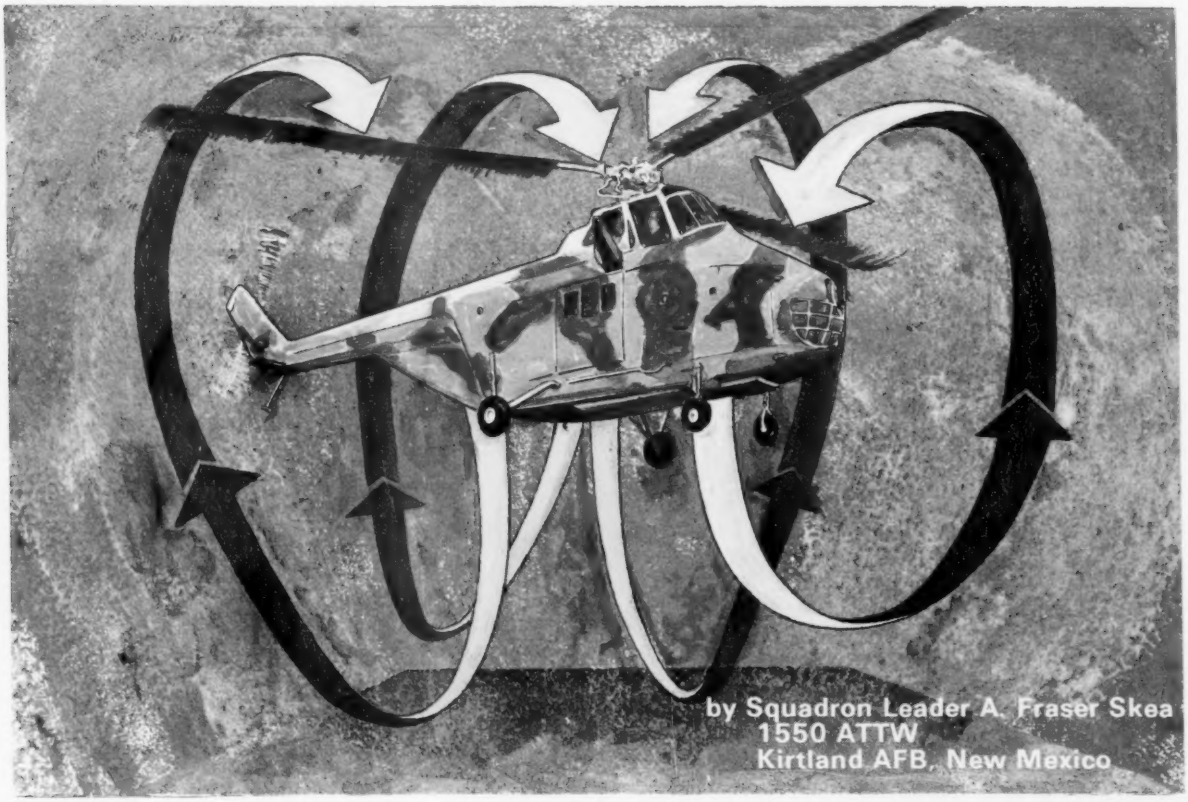
MSgt Ronald E. Levi
1550th Aircrew Tng & Test Wg
Kirtland AFB, New Mexico

ADDITIONAL DUTY

MSgt Ernesto R. Estrada
605th Mil Alft Spt Sq
Anderson AFB, Guam

A "Whirlwind" pilot whips up a storm of protest when he throws caution to the wind.

A Cautionary Helicopter Tale



by Squadron Leader A. Fraser Skea
1550 ATTW
Kirtland AFB, New Mexico

The Westland Whirlwind is a version of the H-19 with a turbine replacing the original reciprocating engine. But, even though it is equipped with a jet engine, the Whirlwind's load capacity is nothing to write home about, as I found out during my first operational assignment with the RAF.

"I was free to roam the wilds of Borneo ... no copilot, no flight mechanic."

The place was Sarawak, North Borneo. The time, 1964. I had been in the squadron about nine months.

In those days, a qualified aircraft commander was free to roam the wilds of Borneo on his own. And I did just that. No copilot, no flight mechanic — we couldn't afford the excess weight! Little did I know during theatre orientation that I was about to prove that a 500-hour helicopter pilot can be an accident looking for a place to happen.

The army at the time was involved in "confrontation" with Indonesia in support of Malaysia and the Sultanate of Brunei. In support of the effort, we operated out of an area of equatorial rain forest with an 80-80-80 climate (80 degrees F, 80 per-

cent humidity, 80 inches of annual rainfall). Not the best conditions for operating the already underpowered Whirlwind.

My squadron was ferrying troops from a battalion area to a company position on the border. The flying leg for the mission was about 15 miles, and with minimum fuel on each run, I could transport the Whirlwind's full load of six troops! The route took us down a river valley and up to the company position which was located in a shallow depression. Several other valleys opened into the depression, and the wind direction shifted rapidly. First it came from one valley, then another. But the wind was light, and so its direction didn't bother me. That was my first mistake.

I made three uneventful runs, entering the depression from the river valley at low level and then turning sharp right to line up for an approach to the helicopter pad in the middle of the depression. At first, I was relatively careful, but my confidence soared with each successive leg. On the fourth run I was beginning to enjoy the mission and flew with a little more dash.

This time as I started up the depression, I let the airspeed increase, then pulled quickly into a right turn. Suddenly I found the pad approaching with unexpected rapidity. Go around? Certainly not. That's a weenie's trick and my skill would swiftly rectify the situation. Down went the collective and up went the nose in a flare — or it might have been the other way round since I not only decelerated but climbed a bit as well. I couldn't see the pad now, but my airspeed had dropped considerably, so I pressed on. I lowered the nose to bring the pad back into view and, yes, there it was, a bit close but still accessible. My rate of descent was now a little too fast, so up with the collective to decrease it.

But nothing happened. Again I increased collective, but again with no success. By this time I was approaching the pad more from a vertical angle than a horizontal one. The collective was almost up to my left ear, but still no success in slowing the descent. I crunched heavily onto the pad, bounced, banged the tail skid, lurched off the left side of the pad, and came to a halt with a pronounced list to port!

Ashen-faced and shaking, I looked up and saw an army welcoming committee running away from the pad at a good rate of speed. Then I noted, with some surprise, that the engine was still running and that temperatures and pressures were normal.

Recovering somewhat, I congratulated myself on having successfully coped with an emergency situation with no damage to myself, my passengers, or my aircraft. I climbed down from my position of solitary splendor in the cockpit and met six very shaken soldiers emerging from the cabin. I explained that the aircraft had suffered some sort of malfunction on the approach and hinted, modestly, that without my expert control the situation could well have ended in disaster. They

"Go around? Certainly not! That's a weenie's trick ..."

were suitably impressed and after thanking me for saving their lives, staggered off to join their comrades who by this time were beginning to emerge from their positions of safety around the pad.

I had not really monitored any instruments during the approach and to this day have no idea at what airspeed or rate of descent I had flown it. Neither can I say which way the wind was blowing — although it probably was from somewhere around the six o'clock position! But at the time of the incident such thoughts never entered my head. I automatically assumed that some sort of power loss had occurred during the approach.

"I hinted modestly that, without my expert control, the situation could have ended in disaster."

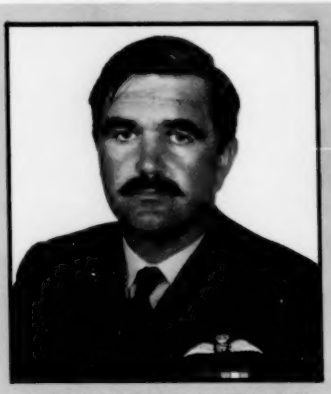
We made radio contact with my squadron and I was soon explaining the incident to my flight commander who flew to the scene with another pilot. He wanted to know the exact circumstances surrounding the incident. I related them as best I could. His reaction was less than favorable, and the feeling in the pit of my stomach told me I was in real trouble.

The flight commander checked out my aircraft and found nothing wrong with it. I climbed shamefacedly into the back of the helicopter and we flew back to base. The upshot of the whole thing was that the Boss grounded me for two weeks, giving me lots of time to consider the error of my ways.

During those two weeks, I recalled some of the things I was supposed to have learned in helicopter ground school. Such as why it is dangerous for a helicopter to enter a condition of low airspeed and high rate of descent during power application. Why hadn't I remembered?

Helicopters are now more advanced in design and a lot more powerful; but they operate at higher gross weights in areas of high temperature and high density altitude, so the hazard of power settling still exists. If you're a helicopter pilot, be aware of this hazard. Don't ignore the wind, even if it is only a gentle zephyr, and don't press on with a bad approach; swallow your pride and go around.

I hope this tale will stick in the minds of you young pilots who are just reaching the point of overconfidence. The lesson I learned helped me. And it could keep you from suffering similar embarrassment — or worse.



ABOUT THE AUTHOR

Squadron Leader Skea began his career in the Royal Air Force in 1962 as a graduate of Edinburgh University. Following pilot training he was assigned to Borneo, and later Singapore, flying the Westland Whirlwind Mk 10. Subsequent tours have taken him to North Wales, Southern England, and Cyprus. He is presently serving with the 1550 ATTW at Kirtland AFB, as an exchange instructor in the H-53.

Global Notes

Hurricane Hunters Receive Praise

During a recent Hurricane Warning Conference at Scott AFB, Dr. Neil Frank, director of the National Hurricane Center, complimented two weather reconnaissance units for their success in meeting last year's hurricane-tracking requirements. The 53 Weather Reconnaissance Squadron and the Air Force Reserve's 920th Weather Reconnaissance Group, both at Keesler AFB, Mississippi, were tasked for 115 requirements to fix the location of storms during the 1976 hurricane season. The two organizations fulfilled all of these requirements, compiling more than 1,100 hours of flying time in the process. Both units were accident free in 1976.

Sergeants Save Airliner

TSgt Tobey

TSgt Rosencrance

TSgts David M. Tobey and Ronald L. Rosencrance of the 619 MASS were on flight line duty at Hickam AFB, Hawaii, when they noticed smoke pouring from the landing gear of a civilian 747 preparing for takeoff. Driving closer to the aircraft, they confirmed that a tire and brake assembly was engulfed in flame.

Unable to contact the aircraft or ground control, they towed the nearest fire extinguisher to the aircraft and began fighting the fire. Since the flight crew was still unaware of the situation, Sergeants Tobey and Rosencrance risked not only the danger of explosion but also the possibility of injury from jet blast had power on the engines been advanced.

They continued fighting the fire until relieved by the fire department, minimizing damage to the aircraft and possibly preventing a major disaster.

For their actions the two men received the MAC Distinguished Individual Safety Award.

ARRS Pilots Honored

For the third consecutive year, the Air Force Association's David C. Shilling Award for the most outstanding contribution in the field of flight has been presented to MAC personnel. Capts Donald R. Backlund and Roland W. Purser received the 1976 award for their leadership and airmanship in the May 1975 recovery of the SS Mayaguez off the coast of Cambodia.

Both men, who were HH-53 pilots assigned to the 40 ARRS in Thailand at the time of the recovery, were also awarded the Air Force Cross for their heroism.

Just in Time

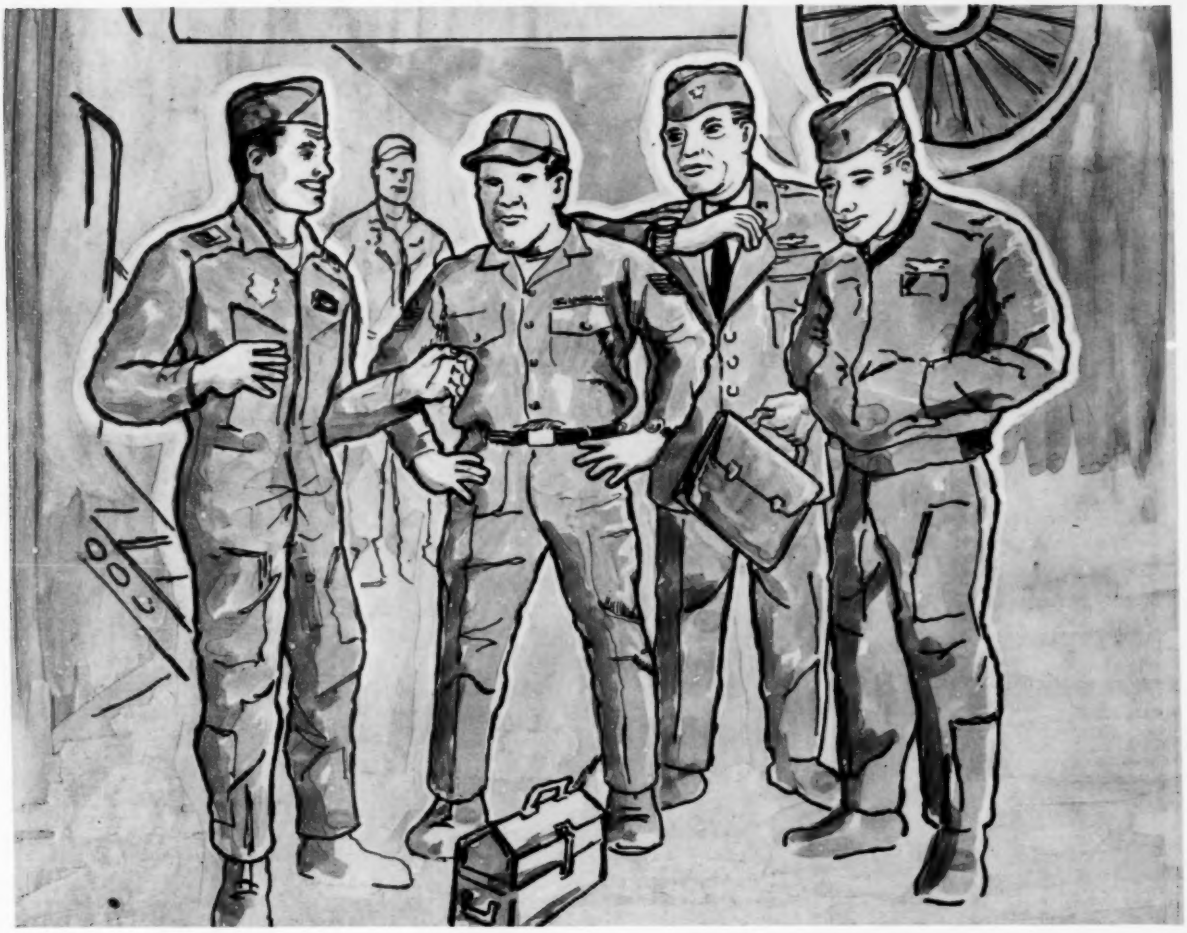
SSgt. Ronnie B. Gilbert and A1C Marcus B. Hewett of the 774 TAS, Dyess AFB, Texas, received the MAC Distinguished Individual Safety Award for their handling of an emergency during a C-130 heavy equipment airdrop mission.

At green light, the extraction chute was released into the slipstream but did not deploy; the chute moved the load just enough so that it could not be locked back into place.

Working swiftly, Sergeant Gilbert and Airman Hewett secured the load with chains. Just as they finished, the extraction chute deployed but the chains held; and the aircraft, which was now well outside the boundaries of the drop zone, recovered uneventfully. The timely actions of loadmasters Gilbert and Hewett had prevented an off-drop-zone release of heavy equipment and the attendant risk of property damage or injury.

A Commentary

Gray Area Decisions at



Ever since the days of the all-prop fleet in MAC (or MATS or ATC), there have been crewmembers who complain of being pressured into flying aircraft which are not quite up to par — for the sake of maintaining acceptable on-time departure rates.

Such complaints usually are not widespread nor is their validity beyond dispute. But chances are, anyone with a couple of thousand flying hours under his belt has experienced the sensation of some type of on-time departure pressure. Pressure is part of flying. But pressure that could result in an unsafe situation should never be.

Whether it is justified or not, operations and maintenance types usually bear the brunt of criticism by crewmembers who perceive themselves as being pressured into violating good safety practices. Crews gripe about a lot of things — and contrary to the old adage, griping doesn't signify contentment — including maintenance, transportation, operations, etc.; and those on the receiving end of the criticism have been known to return as much as they take.

Job Perception

Part of the reason for this lies in how individuals perceive their duties. Operations and support personnel tend to view their mission in the context of smooth, on-time departures and an orderly flow of aircraft, passengers and cargo. Crews? Their primary interest is professionalism in planning, flying,

Block Time

by Lt Col John W. Ray
Supervising Editor

and safely delivering passengers and cargo assigned to their care. When everyone in the system performs his or her job to a "tee," the result is usually an on-time departure with no fanfare.

So why should there be the least bit of griping? There's nothing basically incompatible with either point of view. The fact is, most flightline disagreement involves dedicated people trying to perform as best they can.

Unfortunately, the system does not always work to a "tee." Although MAC can be proud of its safety record and on-time departure rates, there is no such thing as a *perfect* system.

As in most endeavors, there also exists in aviation that phenomenon known as "gray area." Problems arising in these areas more often than not require important judgment decisions in the absence of automatic responses set forth in manuals or regulations. It is here that disagreements sometimes occur and heated disputes arise as block-out time approaches.

MAC's Bread and Butter

Whether we like it or not, the bread and butter of MAC is on-time (and safe) departures and arrivals, a smooth, planned flow of loaded aircraft, and overall efficiency in the use of airframes. Without such a concept, MAC could fulfill neither its peacetime nor wartime commitments. As in any other endeavor, however, pressure sometimes mounts to meet goals which reflect this concept. And aircrews aren't the only ones who feel it.

But before crews, operations and support personnel begin pointing accusing fingers at each other, there are several things that should be considered.

First, there are few, if any, persons in MAC who would knowingly allow a crew to fly an unsafe aircraft. Anyone who would push a crew into the air with a defective machine is laying open his career, as well as his conscience, to irreparable damage. And he knows it. He is also putting his commander's neck on the block — and the commander knows it.

There are also few, if any, aircrews who would turn down an aircraft — or otherwise cause a takeoff delay — without what they consider good reason. They have bosses, too. And while the average flying hours of our rated force may have decreased in recent years, it is lacking neither in professionalism nor the inclination to get the job done safely.

Overzealousness sometimes plays a part in gray area decisions and may aggravate dissensions which arise on the flight line. Another important ingredient which does not always enter into discussions is diplomacy. It has a way of failing to raise its soothing head when needed. That's why an elementary understanding of the other guy's job is essential to team effort.

Judgment Calls

From time to time we're all expected to make judgment calls based as much on common sense as on professional expertise and knowledge of policies and procedures. It is within these parameters that problems surfacing in the gray areas should be solved.

The era of "kick the tires, light the fires, brief on guard and first man up is lead" is a thing of the past. Safety and standardization officers worked for years to destroy that hazardous, if glamorous, attitude. The replacement safety philosophy caused a nosedive in the accident rate and spawned a previously unknown legitimacy to the fledgling MATS safety program. Enigmatically, however, it is within the scope of this new safety awareness that disagreements between flight crews and support personnel usually arise. What seems unsafe to a crew sometimes seems safe to others.

There is not *always* a cut-and-dried solution to differences encountered on the flight line; however, the bottom line is that the aircraft commander is and *must* be the final authority on whether or not to accept an aircraft for flight. The other side to that worn, but appropriate, rule is this: Everyone supporting the flying mission has the responsibility of providing the aircraft commander with every tool available to assist him in making *proper* decisions.

It would be wise to remember that while on-time departure is MAC's bread and butter, MAC's main course is carved from a prime cut called Safety.

A New TMF Feature

Deja Vu: Pago Pago

This is the first article of a new feature designed to give you an insight into airfields you may someday be required to fly into but have never seen. In searching for a title for the feature, we found the English language lacking. Hence, the French title.

Deja vu literally translated means "already seen." American psychologists use the term to describe a type of paramnesia, the feeling of remembering scenes and events experienced for the first time. You may have entered a room or building and had the feeling of having been there before even though you have not. That is deja vu.

When AAVS and MAC aircrew training folks got together to work on the new Airport Qualification Program (see THE MAC FLYER, March 1976) that was the idea—to give you the feeling of having been there before, so that you'll know there's sharply rising terrain just north of the airfield, or that the runway crest 1,500 feet from the approach end might give an illusion of a very short runway, or that general aviation traffic is really a serious problem at this particular airport.

The program is well underway; audiovisuals for 32 airports are already available at your friendly local Learning Center. Future surveys will cover approximately 95 more airports. Alice Springs, Australia, has just been added to the list of programs available; if you're keeping track (see THE MAC FLYER, April 1977, "After Deadline") be sure and add it.

This month we take you to the island paradise of American Samoa. Happy landing!

Pago Pago International Airport is on the south central coast of the Island of Tutuila, American Samoa. There is one major runway, 05/23, which is 9,000 feet long by 150 feet wide. The airport has no control tower, and airdrome advisories are provided by Pago Pago Combined Approach Control Station.

Precision approaches may be made to runway 05, which is normally used for landings. However, a vortac approach is available for runway 23.

Approaching runway 05 at one and three-fourths miles southwest of the airport, the final approach course crosses over a hill that

Precision approaches are normally shot to runway 05. Terrain sloping downward toward the runway could contribute to landing illusions.

rises 395 feet above sea level. To the northeast, the terrain slopes downward toward the approach end of the runway and could contribute to landing illusions. Occasionally a strong right crosswind will blow heavy salt spray onto the runway beyond the VASI.

Runway 23 from an aircraft turning on final. Runway 26, 3,000 feet long, extends to the right of the approach end of runway 23. Runway 26 is restricted to daylight operation only.

Approaching nonprecision runway 23, the airfield may be just barely visible as you're turning final. The highest point on the island is 2,155 feet MSL north of the runway. Runway 26, which is 3,000 feet long and 100 feet wide, extends to the right of the approach end of runway 23. Runway 26 is restricted to daylight operation only. *Adapted from ISD-Q6-476*

Information and Photographs provided by Maj Roy T. Baker, *MAC Aircrew Training and Resource Management Directorate*

Lace curtains on the flight deck? In this episode our Chauvinistic Ship's master finds himself the lone male on a distaff staff.

With a grimace of disgust, C.R. flung the newspaper onto the Starlifter's console. "Look at that, Sammy," he snorted. "Can you believe it?"

Long Suffering Sam finished annotating the last AIREP and looked over at the bold headline marked by the Round One's chubby index finger. It read,"MAC To Get First Female Pilots."

Sam shrugged. "What about it, Boss?"

"What about it!?" C.R. sputtered. "M'boy, have you no imagination? Don't you realize that the world is coming to an end? I can see it now," he moaned. "Lace curtains on the flight deck. Bottles of cosmetics cluttering up the latrine. An eight-piece set of matched luggage—for *us* to bag-drag. And a copilot who's too busy doing her nails to make radio calls. Sammy, I may have to turn in my wings."

"Take it easy, Sir," Sammy soothed. "I'm sure it's not going to be anything like that. After all, they'll be professional pilots, and—"

"Balderdash!" C.R. interrupted. "When you're older, m'lad, you'll realize that there's only one profession that women are suited for, and it doesn't have a thing to do with flying. Take over the bridge, Sammy. My jangled nerves require the solace of an emergency nap." He eased his bulk out of the left seat and headed for the crew rest facility, wadding up the offending newspaper as he went.

As he snuggled under the scratchy GI blanket, the Master Manipulator thought resentfully of the forthcoming invasion of his masculine world. His mind roamed back over the years, his memories becoming rosier the further back in time they drifted. By the time he dropped into slumber, he was happily reliving the days when the bars on his shoulders gleamed gold, when his hair was thicker and his midriff thinner, and when wild new adventures awaited at every RON. Yes sir, those were the good old days...

●

He felt a familiar tug at his foot and heard a voice muffled by the blanket over his head. "C'mon, Lieutenant, the boss wants you."

"Okay, okay, I'm comin'," he muttered. He made his way out of the bunk and down to the latrine for a refreshing splash of water. For a moment he felt strangely disoriented, unable to remember who or where he was. Then as he saw the reflection of the gold bars in the mirror, he remembered. Lieutenant Terror, Academy graduate—and the first male to complete Air Force pilot training. Squaring his shoulders, he went back upstairs to face his awesome responsibility.

As he passed the flight engi-

neer's station he glanced over TSgt Flo Gage's shoulder. A feeling of deep inadequacy came over him as he observed the proportions of the sun-bronzed male in the centerfold of her magazine. Sergeant Gage glanced over her shoulder, saw C.R. watching, and gave him a brilliant and lascivious smile. He hurried toward the copilot's seat, his face crimson.

From the left seat, Maj Amelia Ehrstardt watched her new copilot hurriedly strapping in. She was a plump, red-faced person whose appearance reflected her copious consumption of Grasshoppers and brandy Alexanders. She wore command pilot wings, a 10,000-hour patch, and an expression of matronizing amusement.

"Welcome back, Sweetie. Hope you got your beauty sleep. You'll need it when we hit the bar at Steinem Air Patch tonight," she smirked.

"Ahh, yes, Ma'am," C.R. replied timorously. "Uhh, actually, I was kind of planning on staying in the room to study my Dash One—"

"Don't be silly, Honey," the major interrupted. "Why strain your little mind with all that technical stuff when you can be looking around for some neat-looking fighter pilot to marry you and take you away from all this? A good-looking kid like you shouldn't be wasting his time trying to do a woman's job, anyway."

From her seat at the navigator's station, Capt Marie Dienne had been listening to the conversation. "Come on, Boss," she put in sympathetically. "Give the kid a break. After all, he's a person; he's got a right to take a crack at flying."

"Well, maybe," admitted Major Ehrstardt. "Anyway, it is kinda nice to have a strong back around when it comes time to haul those hibachi pots. Good thing they didn't put men in fighters, though. Just imagine the time they'd have trying to fasten the leg straps on their parachutes—Haw, haw, haw!!"

In the right seat, C.R. smoldered in humiliated silence. Chauvinist sow, he thought. One of these days we'll be running things. Just wait...He sank into a bitter reverie which lasted until the big aircraft eased gently onto the runway at Steinem AFB.

The baggage drill went quickly; C.R. yanked the heavy stuff around savagely, dissipating some of his anger at the snide remarks of the giggling tower controller. As he finished loading the last bag and approached the door to board the bus, Major Ehrstardt stepped aside to let him pass. "After you, Lieutenant," she grinned.

C.R. stepped onto the bus, grudgingly accepting the gesture. "Thank you, Ma'am — OWWW!" he yelped as the sudden pinch took him by surprise. Behind him, his AC chuckled gleefully.

As the major escorted C.R. into the crowded bar, several fighter pilots glanced up from their game of zap aces to eye him appreciatively; one of them gave a low whistle. C.R. glanced around nervously. Other than a couple of white-uniformed nurses listening attentively to the colorful stories of a group of MAC crewmembers, there were no other males in the bar. He spotted a table in a relatively secluded area and turned toward it, but a sudden grip on his elbow steered him away.

"Not there, Honey," the major directed. "If you're going to be a real live MAC crewmember, you'll have to learn to drink at the bar like a woman." Climbing onto a stool, she inserted a multicolored cigarette into an ivory holder. "What're you drinking,

sweetie?"

"Uhh, I guess I'll have a martini," C.R. ventured.

"Mmpf—that figures. Typical man's drink. Hey, bartender—a brandy Alexander for me, and a martini for my aspiring junior birdperson here!"

A few stools away, a tall blond captain glanced up from her drink and looked speculatively at C.R., then came down the bar toward the pair.

"Hi, Amy," she greeted the major. "I see you got one of our aerospace pioneers here—what a deal!" She grinned knowingly. "You, ah, teaching him the ropes?"

"Hi, Suzie. You betcha—I intend to give him the benefit of my experience. *All* my experience, that is—heh, heh, heh." The women grinned; C.R. felt his face turning red with frustration. It looked like a long night ahead.

His head swimming from the third martini, C.R. climbed gratefully under the covers. At last the ordeal was over; and except for the fighter pilots, it hadn't been too bad. He was quietly giving thanks for not being assigned to a fighter squadron after all when he heard a firm rapping on the door.

"Who is it?" he called.

"It's me, Sweetie, " Major Ehrstardt answered. "I need to, ah, brief you on, uh, tomorrow's mission."

"Oh. Okay, Ma'am, come on in," C.R. answered, pulling the covers up to his chin.

Smiling and a little unsteady, the major entered and sat rather heavily on the edge of the bed. C.R. caught an unwelcome whiff of brandy and musk oil.

"Now, Sweetie," she began, chucking C.R. under the chin, "the first thing you need to learn in MAC is how to get along with the AC." She hitched herself a little closer and began stroking C.R.'s shoulder. "Now, for example —"

"Stop! Wait!" C.R. protested. His head was spinning wildly; the room seemed to be fading. "Help! Somebody . . ."

•

"Boss! Take it easy! It's me." The voice was that of Blinky. "You've been having a nightmare. Relax — everything's okay."

Slowly, Blinky's face came into focus. The Great One glanced quickly at his own shoulder; seeing his major's leaves in their accustomed place, he relaxed, still panting.

"A nightmare!" he gasped. "Boy, I'll say it was! Get me a cup of coffee, Blinky, and I'll be back upstairs in a few minutes."

Back on the flight deck, the Master Manipulator sipped his coffee, deep in thought. There was no conversation for a long time. Finally, Sammy broke the silence.

"You know, Sir, I was thinking about what you said a while ago—about female pilots, I mean. It ought to be nice to have some feminine companionship on a trip, especially for a bachelor like yourself — "

C.R. looked shocked. "Sammy!" he said sternly. "How can you talk like that? Remember, m'boy, they may be women, but they're also professional pilots and Air Force officers. You can't expect to get any respect if you don't give them any respect, m'lad. Now, let me tell you. . ."

Sam leaned back, open-mouthed, to listen to the Emerging Egalitarian's harangue. For a moment, he hoped wistfully that C.R. actually did get assigned a female copilot.

Maybe *she* could understand him.

Quick Stoppers

Too Many Violations

This one should interest you aero club members. It involves a civilian pilot who had his license revoked for a "pattern of conduct" characterized by a disregard of air traffic control rules.

After the pilot operated his Cessna in positive controlled airspace without either an IFR clearance or a specifically assigned altitude, the FAA decided enough was enough.

Checking the pilot's record, the FAA discovered that the latest incident was his twenty-third violation since 1952. In six of these cases the pilot's license had been suspended. Among his indiscretions were flying improper patterns in airport traffic and taking off without clearance from air traffic control.

Not to be outdone, the pilot appealed his latest suspension. He said that although his name appeared on the flight plan, the plane was actually being flown by another pilot occupying the right seat. The accused pilot also stated that he had "mistakenly" reported his altitude as 20,000 feet when it was only 12,000. The FAA didn't buy his story—particularly after the copilot admitted they *had* been flying at 20,000 feet.

National Transportation Safety Board
Safety Information Release

Suspicious Vibes

The UH-1N had been airborne about an hour and a half when a medium frequency buzzing sound caused the ears of the crewmembers to perk up. The vibration continued for ten seconds, then stopped.

Instruments indicated nothing abnormal and the buzzing and vibration seemed to have disappeared for good. But to be on the safe side, the pilot made a precautionary landing in a small field.

On the ground, the flight mechanic and copilot deplaned to check for possible damage to the chopper. Just as the flight mechanic opened the right CBG access panel the aircraft commander rolled the throttles to flight idle. As he did, the tail rotor drive shaft flexed violently and pieces began flying out of the bearing assembly. By this time the helicopter was vibrating excessively, so its engines were shut down.

The vibration had been caused by failure of the number one tail rotor drive shaft. Thanks to an alert crew, no one was injured and the helicopter was undamaged.

Mixup on Final

If this account of a C-141 pilot's dilemma doesn't grab you, then you either have nerves of steel or don't fly.

The C-141 was at 2,000 feet on radar vectors for a PAR. It had been sequenced behind another aircraft which was on a nine-mile final. The arrival controller handed the first aircraft off to the final controller, but erroneously gave him the strip for the C-141. So, while talking to the MAC bird, the final controller thought he was controlling the aircraft in front of it. When the controller stated "two miles from touchdown," the MAC pilot decided he'd better do something quick, since his DME showed his position as eight miles from the runway. He broke off his approach and climbed to 1,500 feet since the runway was not in sight due to haze. He finally sighted the field at seven miles DME and completed the approach visually. What about the aircraft ahead of the C-141? Unable to maintain radio communications due to the controller's mixup, the pilot cancelled IFR and executed a straight-in approach under tower control.

Talk about a chinese fire drill!

In the Sacroiliac

Wing tip mishaps are occurring with an alarming frequency, but most of them involve aircraft striking fixed objects such as other planes, aircraft boarding staircases and the like.

Not this one.

The T-39 (non-MAC) had begun taxiing at the marshaller's direction when the outboard portion of its left wing struck a man in the back, injuring him seriously.

It's not difficult to figure out who was at fault. Neither the marshaller nor the pilot took time to ensure the area was clear before taxiing and the man who became the casualty turned his back to the aircraft just as it began to taxi.

U.S. Navy Weekly Summary

Qs

When No One's Minding the Store

You've heard it over and over — when confronted with an emergency, a crew's first priority should be to keep the aircraft under control. A classic example of the fatal nature of misaligned priorities is the airliner that flew into the ground near Miami a few years ago while its crew was troubleshooting a minor problem.

Now, a C-135 crew has come within seconds of duplicating that accident. Except for a generous altitude buffer, the duplication would have been complete.

The incident occurred in night weather conditions at FL 310. A problem with one of the generators started the near fatal chain of events. During his troubleshooting the pilot tripped a circuit breaker switch which set into motion a series of electrical occurrences that kicked off the autopilot. The pilots were unaware that the autopilot was disengaged since there is no cockpit warning of autopilot loss. The attention of the pilot and copilot was confined to troubleshooting procedures and no one noticed that the aircraft had rolled into a left, descending bank. Within 37 seconds the bank angle reached 71 degrees and the pitch attitude 26 degrees nose low. Within 45 seconds the big jet was screaming earthward at 30,000 feet per minute, reaching a speed of Mach .931 as it passed through FL 247. The noise of the wind whistling by prompted the pilot to glance at his attitude indicator which, due to the electrical problem, showed OFF flags. Not believing the wild picture on the copilot's attitude indicator, he selected the emergency power source for the copilot's instruments. This confirmed the unusual attitude, so the pilot throttled back and began the recovery. The aircraft commander, occupying the flight mechanic's seat, extended the speed brake to assist the slowdown. The aircraft leveled at 16,000 feet.

In spite of the wild descent, the aircraft was undamaged. But the crew recovered from this incident through mere chance. Had the aircraft been at traffic pattern or approach altitude, the story might have had a more drastic conclusion.

The necessity for constant crew coordination is basic for any multi-place aircraft. And someone must always be assigned the duty of watching the store.

A Lunch, No Picnic

The Marine sergeant remarked that the can of orange juice he had consumed as part of his in-flight meal had a "tinny" taste, but apparently didn't think much about it — until about six hours later.

That's when he became dizzy, began perspiring, turned pale and finally passed out. Oxygen was administered and a medic attended him. After regaining consciousness, the sergeant vomited and then felt better. The remainder of the flight was uneventful. Doctors who examined the man after the flight could find nothing abnormal, so they were unable to treat him. So what caused the problem? No one is quite sure.

Flight lunches are closely controlled in MAC, but no system is foolproof. Canned goods don't normally carry an "expiration" date on them, and persons who consume them usually must rely on their sense of taste and smell to detect spoilage. A good point to keep in mind the next time any portion of your flight lunch doesn't taste quite right.

after deadline . . .

A SYSTEMS OPERATOR TEST PROGRAM is underway at Charleston AFB, where INS-equipped C-141's are now flying with smaller crews. The test program is separate from the *interim* systems operator program which begins at all C-141 wings in June. During the test, a systems operator is replacing both the navigator and second engineer; he performs scanner's duties, operates the engineer's panel in flight, and uses the INS and radar to avoid weather and to monitor approaches and departures. Test results will determine which crew position will eventually be used to provide systems operator resources.

NEW LOW-ALTITUDE WARNING CAPABILITY has been added to the FAA's ARTS III sites at Dulles and Los Angeles International Airports. The system, which uses transponder altitude readouts and computer-programmed minimum altitude information, alerts air traffic controllers when an aircraft reaches an unsafe altitude with respect to terrain or obstructions. All 63 sites served by ARTS III are scheduled to get the added safety feature by mid-1977.

C-141 AIRDROP FORCE REALIGNED--Starlifter crews at McChord, Travis, and McGuire will soon be back in the airdrop business following a realignment of airdrop capability throughout the command. Under the new program, airlift wings at Charleston, Norton, and McChord will be designated primary airdrop units. In addition, four aircrews at Travis and McGuire will maintain airdrop currency; these wings will concentrate on aerial cargo delivery but will not be equipped with SKE aircraft. The realignment is designed to provide a nucleus of experience at each C-141 wing should rapid expansion of the airdrop force be required.

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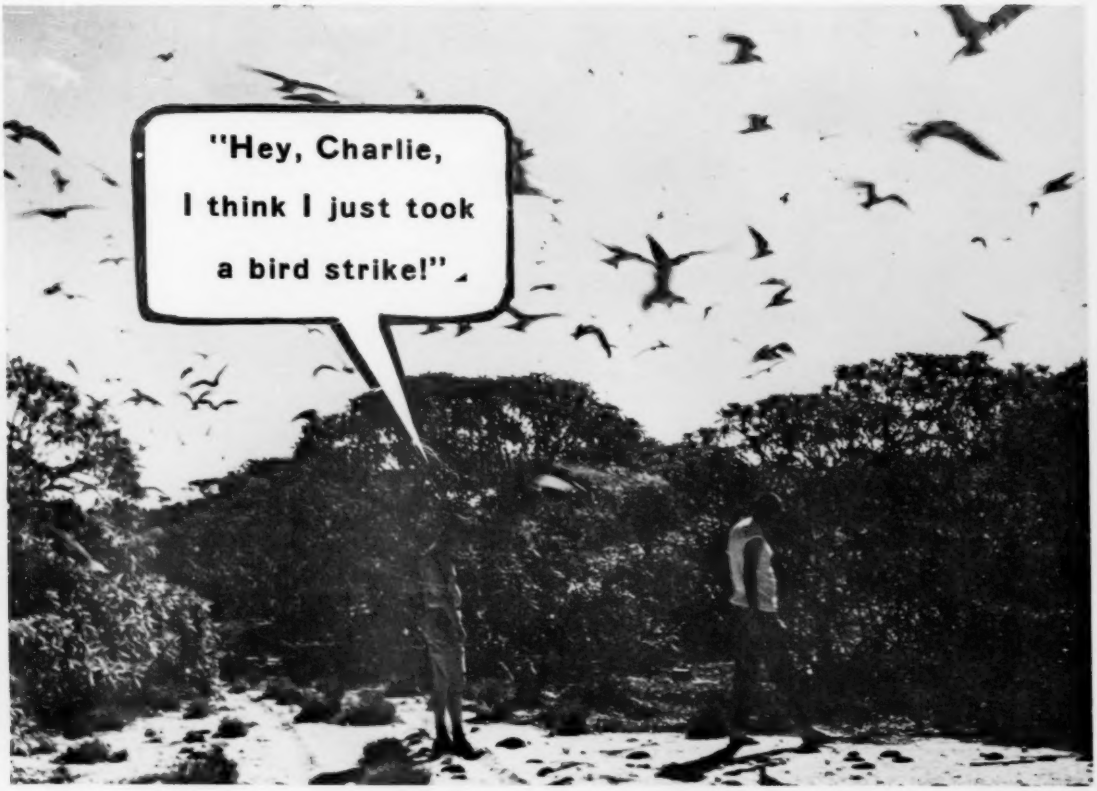
Touch 'n Go